

<110> Rosen et al.

<120> 44 Human Secreted Proteins

<130> PZ024P1

<140> Unassigned

<141> 1999-08-05

<150> 60/074,118

<151> 1998-02-09

<150> 60/074,157

<151> 1998-02-09

<150> 60/074,137

<151> 1998-02-09

<150> 60/074,341

<151> 1998-02-09

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<151> 1998-02-09

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<170> PatentIn Ver. 2.0

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<213> Homo sapiens

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44 Human Secreted Proteins

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<213> Homo sapiens

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27

<213> Homo sapiens

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<213> Homo sapiens

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<213> Homo sapiens

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900

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1140

1200

1260

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&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 13

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&lt;210&gt; 14

&lt;211&gt; 1590

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

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&lt;211&gt; 1188

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

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&lt;222&gt; (892)

&lt;223&gt; n equals a,t,g, or c

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&lt;210&gt; 18

&lt;211&gt; 1605

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 18

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&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 20

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&lt;210&gt; 21

&lt;211&gt; 1761

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (1207)

&lt;223&gt; n equals a,t,g, or c

&lt;400&gt; 21

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&lt;210&gt; 22

&lt;211&gt; 1189

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 22

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 <212> DNA  
 <213> Homo sapiens

<400> 23

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 <212> DNA  
 <213> Homo sapiens

<400> 24

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&lt;210&gt; 25

&lt;211&gt; 1964

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 25

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&lt;210&gt; 26

&lt;211&gt; 933

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens



&lt;400&gt; 26

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&lt;210&gt; 27

&lt;211&gt; 1237

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (556)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (619)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (672)

&lt;223&gt; n equals a,t,g, or c

&lt;400&gt; 27

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<210> 28  
 <211> 960  
 <212> DNA  
 <213> Homo sapiens

<400> 28							
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 <212> DNA  
 <213> Homo sapiens

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 <211> 1063  
 <212> DNA

205222 2452901

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (965)

&lt;223&gt; n equals a,t,g, or c

&lt;400&gt; 30

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&lt;210&gt; 31

&lt;211&gt; 1430

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 31

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<210> 32  
 <211> 1382  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (1339)  
 <223> n equals a,t,g, or c

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 <212> DNA  
 <213> Homo sapiens

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 ccttggtgac agctgtgatg ttctaatatg atttgggaat atgtcagtct acagaacctg 420  
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 catgtgactt tttattacca aatgcatcag tagtggagct ggtatgttgt ttcataggat 540  
 ggaaacatta gaagtccaga gaaaaataaa ttttaaaaaa aggtggaaaa gttacggcaa 600  
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ag						1502

&lt;210&gt; 34

&lt;211&gt; 727

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 34

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&lt;210&gt; 35

&lt;211&gt; 1991

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (300)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (353)

&lt;223&gt; n equals a,t,g, or c

&lt;400&gt; 35

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ctgttccctg	a					1991

&lt;210&gt; 36

&lt;211&gt; 2321

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (787)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (880)

&lt;223&gt; n equals a,t,g, or c

&lt;400&gt; 36

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&lt;210&gt; 37

&lt;211&gt; 1558

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 37

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&lt;210&gt; 38

&lt;211&gt; 1701

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 38

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gagttttcaa	aaccactatt	cttctaataa	attttggtgt	gaaaaactga	aaaaaaaaaa	1680
aaaaaaaaaa	aaactcgtag	g				1701

&lt;210&gt; 39

&lt;211&gt; 1903

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 39

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&lt;210&gt; 40

&lt;211&gt; 1280

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 40

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gsgggcccg	gaaccaattt					1280

&lt;210&gt; 41

&lt;211&gt; 1918

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

20050413 10:52:00

&lt;400&gt; 41

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&lt;210&gt; 42

&lt;211&gt; 1268

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (2)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (15)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (23)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (368)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (479)

&lt;223&gt; n equals a,t,g, or c

&lt;400&gt; 42

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cagagcaaga	ctccgtctca	aaaaaaaaaa	aaaaaaaaaa	aaaaaaaaaa	aaaaaaaaaa	1260
aactcgta						1268

&lt;210&gt; 43

&lt;211&gt; 1201

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (1192)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (1197)

&lt;223&gt; n equals a,t,g, or c

&lt;400&gt; 43

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 <212> DNA  
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 <222> (5)  
 <223> n equals a,t,g, or c

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 <222> (12)  
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<220>  
 <221> SITE

&lt;222&gt; (170)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (184)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (728)

&lt;223&gt; n equals a,t,g, or c

&lt;400&gt; 45

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&lt;210&gt; 46

&lt;211&gt; 2094

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 46

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&lt;210&gt; 47

&lt;211&gt; 956

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (319)

&lt;223&gt; n equals a,t,g, or c

&lt;400&gt; 47

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 <212> DNA  
 <213> Homo sapiens

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&lt;210&gt; 50

&lt;211&gt; 1238

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 50

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&lt;210&gt; 51

&lt;211&gt; 2581

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 51

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&lt;211&gt; 991

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 52

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 <212> DNA  
 <213> Homo sapiens

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 <223> n equals a,t,g, or c

<220>  
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 <223> n equals a,t,g, or c

<220>  
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<210> 56  
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<211> 1433

<212> DNA

<213> Homo sapiens

<400> 57

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<212> DNA
<213> Homo sapiens
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<210> 60  
 <211> 308  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (165)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (247)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (308)  
 <223> Xaa equals stop translation

<400> 60  
 Met Gly Thr Gln Glu Gly Trp Cys Leu Leu Leu Cys Leu Ala Leu Ser



1	5	37	10	15
Gly Ala Ala Glu Thr Lys Pro His Pro Ala Glu Gly Gln Trp Arg Ala	20	25	30	
Val Asp Val Val Leu Asp Cys Phe Leu Ala Lys Asp Gly Ala His Arg	35	40	45	
Gly Ala Leu Ala Ser Ser Glu Asp Arg Ala Arg Ala Ser Leu Val Leu	50	55	60	
Lys Gln Val Pro Val Leu Asp Asp Gly Ser Leu Glu Asp Phe Thr Asp	65	70	75	80
Phe Gln Gly Gly Thr Leu Ala Gln Asp Asp Pro Pro Ile Ile Phe Glu	85	90	95	
Ala Ser Val Asp Leu Val Gln Ile Pro Gln Ala Glu Ala Leu Leu His	100	105	110	
Ala Asp Cys Ser Gly Lys Glu Val Thr Cys Glu Ile Ser Arg Tyr Phe	115	120	125	
Leu Gln Met Thr Glu Thr Thr Val Lys Thr Ala Ala Trp Phe Met Ala	130	135	140	
Asn Met Gln Val Ser Gly Gly Gly Pro Ser Ile Ser Leu Val Met Lys	145	150	155	160
Thr Pro Arg Val Xaa Lys Asn Glu Ala Leu Trp His Pro Thr Leu Asn	165	170	175	
Leu Pro Leu Ser Pro Gln Gly Thr Val Arg Thr Ala Val Glu Phe Gln	180	185	190	
Val Met Thr Gln Thr Gln Ser Leu Ser Phe Leu Leu Gly Ser Ser Ala	195	200	205	
Ser Leu Asp Cys Gly Phe Ser Met Ala Pro Gly Leu Asp Leu Ile Ser	210	215	220	
Val Glu Trp Arg Leu Gln His Lys Gly Arg Gly Gln Leu Val Tyr Ser	225	230	235	240
Trp Thr Ala Gly Arg Gly Xaa Leu Cys Gly Arg Ala Leu Pro Trp Ser	245	250	255	
Leu His Asn Trp Ala Trp Pro Gly Met Pro Pro Ser Pro Cys Pro Ala	260	265	270	
Ser Leu Tyr Arg Thr Arg Gly Pro Thr Phe Ala Arg Ser Pro Pro Leu	275	280	285	
Cys Thr Glu Leu Ser Arg Ser Ser Ser Ser Thr Ser Lys Leu Pro Leu	290	295	300	
Lys Tyr Asp Xaa	305			

<210> 61  
 <211> 579  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (64)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (574)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (579)  
 <223> Xaa equals stop translation

<400> 61  
 Met Arg Ala Ala Arg Ala Ala Pro Leu Leu Gln Leu Leu Leu Leu Leu  
           1                  5                  10                  15  
 Gly Pro Trp Leu Glu Ala Ala Gly Val Ala Glu Ser Pro Leu Pro Ala  
                   20                  25                  30  
 Val Val Leu Ala Ile Leu Ala Arg Asn Ala Glu His Ser Leu Pro His  
           35                  40                  45  
 Tyr Leu Gly Ala Leu Glu Arg Leu Asp Tyr Pro Arg Ala Arg Met Xaa  
           50                  55                  60  
 Leu Trp Cys Ala Thr Asp His Asn Val Asp Asn Thr Thr Glu Met Leu  
           65                  70                  75                  80  
 Gln Glu Trp Leu Ala Ala Val Gly Asp Asp Tyr Ala Ala Val Val Trp  
                   85                  90                  95  
 Arg Pro Glu Gly Glu Pro Arg Phe Tyr Pro Asp Glu Glu Gly Pro Lys  
           100                  105                  110  
 His Trp Thr Lys Glu Arg His Gln Phe Leu Met Glu Leu Lys Gln Glu  
           115                  120                  125  
 Ala Leu Thr Phe Ala Arg Asn Trp Gly Ala Asp Tyr Ile Leu Phe Ala  
           130                  135                  140  
 Asp Thr Asp Asn Ile Leu Thr Asn Asn Gln Thr Leu Arg Leu Leu Met  
           145                  150                  155                  160  
 Gly Gln Gly Leu Pro Val Val Ala Pro Met Leu Asp Ser Gln Thr Tyr  
           165                  170                  175  
 Tyr Ser Asn Phe Trp Cys Gly Ile Thr Pro Gln Gly Tyr Tyr Arg Arg  
           180                  185                  190











Pro Thr Ser Tyr Gly Pro His Arg Pro Arg Gln Arg Gln Arg Arg Glu  
 165 170 175

Met Val Ala Gln Gln His Arg Leu Arg Gln Ile Gln Glu Arg Xaa  
 180 185 190

<210> 66  
 <211> 200  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (118)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (120)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (200)  
 <223> Xaa equals stop translation

<400> 66  
 Met Thr Ser Cys Gly Gln Gln Ser Leu Asn Val Leu Ala Val Leu Phe  
 1 5 10 15

Ser Leu Leu Phe Ser Ala Val Leu Ser Ala His Phe Arg Val Cys Glu  
 20 25 30

Pro Tyr Thr Asp His Lys Gly Arg Tyr His Phe Gly Phe His Cys Pro  
 35 40 45

Arg Leu Ser Asp Asn Lys Thr Phe Ile Leu Cys Cys His His Asn Asn  
 50 55 60

Thr Val Phe Lys Tyr Cys Cys Asn Glu Thr Glu Phe Gln Ala Val Met  
 65 70 75 80

Gln Ala Asn Leu Thr Ala Ser Ser Glu Gly Tyr Met His Asn Asn Tyr  
 85 90 95

Thr Ala Leu Leu Gly Val Trp Ile Tyr Gly Phe Phe Val Leu Met Leu  
 100 105 110

Leu Val Leu Asp Leu Xaa Tyr Xaa Ser Ala Met Asn Tyr Asp Ile Cys  
 115 120 125

Lys Val Tyr Leu Ala Arg Trp Gly Ile Gln Gly Arg Trp Met Lys Gln  
 130 135 140

Asp Pro Arg Arg Trp Gly Asn Pro Ala Arg Ala Pro Arg Pro Gly Gln  
 145 150 155 160



Arg Ala Pro Gln Pro Gln Pro Pro Pro Gly Pro Leu Pro Gln Ala Pro  
 165 170 175

Gln Ala Val His Thr Leu Arg Gly Asp Ala His Ser Pro Pro Leu Met  
 180 185 190

Thr Phe Gln Ser Ser Ser Ala Xaa  
 195 200

<210> 67  
 <211> 62  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (62)  
 <223> Xaa equals stop translation

<400> 67  
 Met Leu Leu Ser Ser Leu Ile Gly Trp Cys Ser Phe Val Glu Pro Val  
 1 5 10 15

Leu Ile Phe Phe Phe Leu Thr Ile Leu Ile Arg Leu Leu Glu Gln Ser  
 20 25 30

Asn Trp Gly Ile Glu Glu Met Lys Thr Gly Tyr Phe Cys Ile Cys Glu  
 35 40 45

Val Gly Thr Gly Asn Ile Trp Thr Cys Ser Ser Tyr Ser Xaa  
 50 55 60

<210> 68  
 <211> 608  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (242)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (608)  
 <223> Xaa equals stop translation

<400> 68  
 Met Arg Thr Pro Gln Leu Ala Leu Leu Gln Val Phe Phe Leu Val Phe  
 1 5 10 15

Pro Asp Gly Val Arg Pro Gln Pro Ser Ser Ser Pro Ser Gly Ala Val  
 20 25 30

Pro Thr Ser Leu Glu Leu Gln Arg Gly Thr Asp Gly Gly Thr Leu Gln

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35                      40                      45  
 Ser Pro Ser Glu Ala Thr Ala Thr Arg Pro Ala Val Pro Gly Leu Pro  
     50                      55                      60  
 Thr Val Val Pro Thr Leu Val Thr Pro Ser Ala Pro Gly Asn Arg Thr  
     65                      70                      75                      80  
 Val Asp Leu Phe Pro Val Leu Pro Ile Cys Val Cys Asp Leu Thr Pro  
                     85                      90                      95  
 Gly Ala Cys Asp Ile Asn Cys Cys Cys Asp Arg Asp Cys Tyr Leu Leu  
                     100                      105                      110  
 His Pro Arg Thr Val Phe Ser Phe Cys Leu Pro Gly Ser Val Arg Ser  
                     115                      120                      125  
 Ser Ser Trp Val Cys Val Asp Asn Ser Val Ile Phe Arg Ser Asn Ser  
     130                      135                      140  
 Pro Phe Pro Ser Arg Val Phe Met Asp Ser Asn Gly Ile Arg Gln Phe  
     145                      150                      155                      160  
 Cys Val His Val Asn Asn Ser Asn Leu Asn Tyr Phe Gln Lys Leu Gln  
                     165                      170                      175  
 Lys Val Asn Ala Thr Asn Phe Gln Ala Leu Ala Ala Glu Phe Gly Gly  
                     180                      185                      190  
 Glu Ser Phe Thr Ser Thr Phe Gln Thr Gln Ser Pro Pro Ser Phe Tyr  
                     195                      200                      205  
 Arg Ala Gly Asp Pro Ile Leu Thr Tyr Phe Pro Lys Trp Ser Val Ile  
     210                      215                      220  
 Ser Leu Leu Arg Gln Pro Ala Gly Val Gly Ala Gly Gly Leu Cys Ala  
     225                      230                      235                      240  
 Glu Xaa Asn Pro Ala Gly Phe Leu Glu Ser Lys Ser Thr Thr Cys Thr  
                     245                      250                      255  
 Arg Phe Phe Lys Asn Leu Ala Ser Ser Cys Thr Leu Asp Ser Ala Leu  
                     260                      265                      270  
 Asn Ala Ala Ser Tyr Tyr Asn Phe Thr Val Leu Lys Val Pro Arg Ser  
                     275                      280                      285  
 Met Thr Asp Pro Gln Asn Met Glu Phe Gln Val Pro Val Ile Leu Thr  
     290                      295                      300  
 Ser Gln Ala Asn Ala Pro Leu Leu Ala Gly Asn Thr Cys Gln Asn Val  
     305                      310                      315                      320  
 Val Ser Gln Val Thr Tyr Glu Ile Glu Thr Asn Gly Thr Phe Gly Ile  
                     325                      330                      335  
 Gln Lys Val Ser Val Ser Leu Gly Gln Thr Asn Leu Thr Val Glu Pro  
                     340                      345                      350

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Gly Ala Ser Leu Gln Gln His Phe Ile Leu Arg Phe Arg Ala Phe Gln  
 355 360 365  
 Gln Ser Thr Ala Ala Ser Leu Thr Ser Pro Arg Ser Gly Asn Pro Gly  
 370 375 380  
 Tyr Ile Val Gly Lys Pro Leu Leu Ala Leu Thr Asp Asp Ile Ser Tyr  
 385 390 395 400  
 Ser Met Thr Leu Leu Gln Ser Gln Gly Asn Gly Ser Cys Ser Val Lys  
 405 410 415  
 Arg His Glu Val Gln Phe Gly Val Asn Ala Ile Ser Gly Cys Lys Leu  
 420 425 430  
 Arg Leu Lys Lys Ala Asp Cys Ser His Leu Gln Gln Glu Ile Tyr Gln  
 435 440 445  
 Thr Leu His Gly Arg Pro Arg Pro Glu Tyr Val Ala Ile Phe Gly Asn  
 450 455 460  
 Ala Asp Pro Ala Gln Lys Gly Gly Trp Thr Arg Ile Leu Asn Arg His  
 465 470 475 480  
 Cys Ser Ile Ser Ala Ile Asn Cys Thr Ser Cys Cys Leu Ile Pro Val  
 485 490 495  
 Ser Leu Glu Ile Gln Val Leu Trp Ala Tyr Val Gly Leu Leu Ser Asn  
 500 505 510  
 Pro Gln Ala His Val Ser Gly Val Arg Phe Leu Tyr Gln Cys Gln Ser  
 515 520 525  
 Ile Gln Asp Ser Gln Gln Val Thr Glu Val Ser Leu Thr Thr Leu Val  
 530 535 540  
 Asn Phe Val Asp Ile Thr Gln Lys Pro Gln Pro Pro Arg Gly Gln Pro  
 545 550 555 560  
 Lys Met Asp Trp Lys Trp Pro Phe Asp Phe Phe Pro Phe Lys Val Ala  
 565 570 575  
 Phe Ser Arg Gly Val Phe Ser Gln Lys Cys Ser Val Ser Pro Ile Leu  
 580 585 590  
 Ile Leu Cys Leu Leu Leu Leu Gly Val Leu Asn Leu Glu Thr Met Xaa  
 595 600 605

&lt;210&gt; 69

&lt;211&gt; 90

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (90)

&lt;223&gt; Xaa equals stop translation

&lt;400&gt; 69

Met Ala Leu Arg Phe Leu Leu Leu Ser Ile Gly Pro Val Pro Ser Leu

1

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Gly Asn Ile Ala Ala Ala Gly Ser Asp Glu Lys Cys Lys Leu Ala Met

20

25

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Gln Arg Gly Ala Gln Ser Ser Val Asn Tyr Ser Gln Gly Ser Leu Lys

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Asp Ala Ala Ser Ala Ser Thr Arg Thr Ala Ser Gly Trp Val Lys Arg

50

55

60

Asn Arg Ser Arg Glu Asn Gln Glu Met Leu Ile Tyr Ser Lys Asn Lys

65

70

75

80

Ile Pro Ile Trp Lys Ile Ser Lys Lys Xaa

85

90

&lt;210&gt; 70

&lt;211&gt; 117

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (117)

&lt;223&gt; Xaa equals stop translation

&lt;400&gt; 70

Met Ala Gly Leu Ile Phe Val Leu His Ser Cys Phe Arg Phe Ile Thr

1

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Phe Val Cys Pro Thr Ser Ser Asp Pro Leu Arg Thr Cys Ala Val Leu

20

25

30

Leu Cys Val Gly Tyr Gln Asp Leu Pro Asn Pro Val Phe Arg Tyr Leu

35

40

45

Gln Ser Val Asn Glu Leu Leu Ser Thr Leu Leu Asn Ser Asp Ser Pro

50

55

60

Gln Gln Val Leu Gln Phe Val Pro Met Glu Val Leu Leu Lys Gly Ala

65

70

75

80

Leu Leu Asp Phe Leu Trp Asp Leu Asn Ala Ala Ile Ala Lys Arg His

85

90

95

Leu His Phe Ile Ile Gln Arg Glu Arg Glu Glu Ile Ile Asn Ser Leu

100

105

110

Gln Leu Gln Asn Xaa

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<210> 71
<211> 140
<212> PRT
<213> Homo sapiens
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<220>
<221> SITE
<222> (140)
<223> Xaa equals stop translation
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Met Cys Val Trp Gly Val Cys Val Cys Val Val Ala Arg Val Cys Val  
1 5 10 15

Trp Leu Gly Leu Ala Glu Leu Phe Arg Gly Arg Val Arg Asp Cys Gly  
20 25 30

Lys Ile Thr His Phe Pro Thr Tyr Leu Leu Tyr Trp Thr Leu Lys Asn  
35 40 45

Asn Asn Lys His Gln Val Lys Phe Leu Asn His Val Leu Cys Val Cys  
50 55 60

Val Cys Val Cys Val Cys Val Cys Ile Cys Lys Cys Ile Cys Ile Cys  
65 70 75 80

Met Leu Leu Tyr Phe Gln Val Asn Asn Tyr Ile Glu Asp Cys Ile Ala  
85 90 95

Gln Lys His Ser Leu Ile Lys Val Leu Arg Leu Val Cys Leu Gln Ser  
100 105 110

Val Cys Asn Ser Gly Leu Lys Gln Lys Val Leu Asp Tyr Tyr Lys Arg  
115 120 125

Glu Ile Leu Gln Val Ser Ile Phe Leu Asn Tyr Xaa  
130 135 140

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<210> 72
<211> 96
<212> PRT
<213> Homo sapiens
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<220>  
<221> SITE  
<222> (96)  
<223> Xaa equals stop translation
```

Met His Leu Cys Ile Cys Ala Val Trp Val Leu Val Ala Leu Leu Arg  
1 5 10 15

Met His Gly Ala Ser Pro Ala Gln Thr Ser Gly Thr Arg Ser Gly Asn  
20 25 30

<400> 74  
Met Ala Val Arg Leu Ile Lys Pro Ala Val Phe Ala Val Leu Ala Gly  
1 5 10 15

51

Phe Ser Val Leu Trp Leu Ser Pro Ala Ser Leu Ala Ala Ser Phe Asp  
                   20                  25                  30

Cys Asp Arg Ala Lys Arg Leu Thr Arg Lys Pro Ser Val Pro Arg Ala  
                   35                  40                  45

Pro Ser Met Ile Arg Thr Xaa  
                   50                  55

<210> 75  
 <211> 210  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (181)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (200)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (207)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (210)  
 <223> Xaa equals stop translation

<400> 75  
 Met Tyr Phe Leu Phe Phe Phe Ala Phe Phe Phe Phe Pro Leu Phe Cys  
           1                  5                  10                  15

Tyr Cys Phe Asn Tyr Asn Lys Arg Ala Arg Gly Ser Gln Ala Leu Ala  
                   20                  25                  30

Arg Ser Trp Arg Pro Met Gly Val Leu Gly Arg Gly Arg Gly Glu Val  
                   35                  40                  45

Ser Gly Gly Gln Arg Trp Arg Val Lys Asn Glu Lys Val Gly Glu Leu  
                   50                  55                  60

Gly Leu Ala Gln Glu Pro Cys Val Pro Ala His Ser Pro Pro Ser Leu  
                   65                  70                  75                  80

Pro Leu Pro Thr Ser Leu Pro Leu His Gly Phe Ser Pro Pro Leu Pro  
                   85                  90                  95

Glu Ser Tyr Gly Thr Gly Pro Cys Ser Ser Gly Ile Gln Leu Leu Pro  
                   100                  105                  110

Ala His Ser Ser Ser Trp Ala Thr Ser Pro Pro Thr Phe Asp Val Ser

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115                      120                      125  
 Pro Pro Val Ala Thr Leu Gln Leu Ala Phe Gln Ala Pro Ser Arg Gly  
 130                      135                      140  
 Arg Pro Leu Pro Arg Pro Leu Thr His Val Ala Ile Pro Thr Trp Leu  
 145                      150                      155                      160  
 Pro Val Met Ser Leu Leu Ser Lys Pro Ser Cys Pro Leu Phe Leu Pro  
 165                      170                      175  
 Pro Arg His Ala Xaa Thr Lys Trp Trp Lys Pro Pro Leu Ser Pro Ser  
 180                      185                      190  
 Leu Pro Cys Ala Glu Phe Ser Xaa Val Leu Asn Glu Gly Glu Xaa Asp  
 195                      200                      205  
 Lys Xaa  
 210

<210> 76  
 <211> 105  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (89)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (105)  
 <223> Xaa equals stop translation

<400> 76  
 Met Pro Thr Ser Ser Tyr Arg Ser Val Trp Pro Leu Thr Leu Leu Ala  
 1                      5                      10                      15  
 Leu Lys Ser Thr Ala Cys Ala Leu Ala Phe Thr Arg Met Pro Gly Phe  
 20                      25                      30  
 Gln Thr Pro Ser Glu Phe Leu Glu Asn Pro Ser Gln Ser Ser Arg Leu  
 35                      40                      45  
 Thr Ala Pro Phe Arg Lys His Val Arg Pro Lys Lys Gln His Glu Ile  
 50                      55                      60  
 Arg Arg Leu Gly Glu Leu Val Lys Lys Pro Ser Asp Phe Thr Gly Cys  
 65                      70                      75                      80  
 Thr Gln Val Val Asp Val Gly Ser Xaa Gln Gly His Leu Ser Arg Phe  
 85                      90                      95  
 Met Ala Leu Gly Leu Gly Leu Met Xaa  
 100                      105



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<400> 77
Met Leu Leu Leu Met Leu Val Asn Thr Ser Ala Val Ala Cys Thr His
  1             5             10             15

Gly Gly Arg Gly Pro Trp Gly Asn Ser Ala Ala Gln Ala Cys Ala Ala
  20             25             30

Leu Ala Pro Trp Pro Arg Gln Asp Pro Ser Ala Ala Ser Gln Trp Gln
  35             40             45

Pro Gln Val Leu Val Gly Leu Leu Ser Tyr His Gly Trp Gly Gly Gln
  50             55             60

Arg Leu Ser Pro Cys Pro Arg Ser Ile Cys Cys Val Ser Thr Arg His
  65             70             75             80

Leu Glu Gly Ala Arg Ser Lys Ala Gln Gly Pro Ala Ala Trp Leu His
  85             90             95

Met Glu Val Arg Val Pro Arg Val Gln Pro Pro Ala Leu Gln Val Pro
  100            105            110

Ser Ser Ser Asp Lys Ala Gly Gln Gly Arg Trp Gly Val Pro Gly Gln
  115            120            125

Arg Gly Leu Val Gly Arg Gly Gly Gly Cys Lys Val Thr Pro Ser Leu
  130            135            140

Pro Cys Arg Arg Thr Glu Arg Lys Arg Thr Ala Ala Ser Ala Lys Val
  145            150            155            160

Thr Cys Pro Ala Ser Ser Arg Arg Pro Trp Gly Trp Gln Ser Ser Pro
  165            170            175

```

```
<220>  
<221> SITE  
<222> (45)  
<223> Xaa equals stop translation
```

```
<400> 78
Met His Lys Asn Asn Leu Phe Leu Cys Val Leu Phe Arg Leu Leu Phe
  1             5             10             15
```

Arg Cys Ser Cys Phe Asn Leu Leu Asn Phe Pro Gln Thr Tyr Ala Val  
20 25 30

Gly Lys Gly Gln Ala Gly Lys Asp Gln Cys Ser Ser Xaa  
35 40 45

```
<210> 79
<211> 71
<212> PRT
<213> Homo sapiens
```

```
<220>
<221> SITE
<222> (71)
<223> Xaa equals stop translation
```

```
<400> 79
Met Asp Ser Val Thr Ala Gly Leu Phe Met Leu Ser Phe Leu Leu Tyr
  1             5             10             15
```

Leu Pro Ser Ser Ala Phe Ser Gly His Trp Tyr Pro Tyr Pro Gly Val  
20 25 30

Val Ser Trp Ser Asn Ser Cys Leu Ala Gly Leu Asn Cys Gly Val Ser  
35 40 45

Gly Pro Lys Ala Ile Gly Thr Ser Val Val Tyr Phe Leu Ile Pro Ile  
50 55 60

Leu Trp Arg Phe Val Phe Xaa  
65 70

```
<210> 80
<211> 56
<212> PRT
<213> Homo sapiens
```

<400> 80  
Met Cys Leu Ala Phe Ser Val Ile Ile Leu Ala Gly Ala Gly Ser Ser  
1 5 10 15

Arg Ser Trp Asn Ser Val Leu Val Glu Lys Glu Val Val Glu Gly Gly  
20 25 30

Leu Gly Pro Trp Gly Asn Cys Ser Ala Glu Pro Leu Pro His Leu Leu  
35 40 45

Leu Pro Arg Thr Asn Leu Lys Gly  
50 55

```
<210> 81
<211> 49
<212> PRT
<213> Homo sapiens
```

Ala Gly Thr Gly Ser Thr Trp Gly Ser Arg Arg Asp Ser His Cys Cys

Symbol	Definition	Symbol	Definition
$\mathcal{A}$	Algebra	$\mathcal{B}$	Basis
$\mathcal{C}$	Class	$\mathcal{D}$	Diagram
$\mathcal{E}$	Element	$\mathcal{F}$	Field
$\mathcal{G}$	Group	$\mathcal{H}$	Homomorphism
$\mathcal{I}$	Ideal	$\mathcal{J}$	Isomorphism
$\mathcal{K}$	Kernel	$\mathcal{L}$	Language
$\mathcal{M}$	Matrix	$\mathcal{N}$	Norm
$\mathcal{O}$	Order	$\mathcal{P}$	Polynomial
$\mathcal{Q}$	Quotient	$\mathcal{R}$	Ring
$\mathcal{S}$	Set	$\mathcal{T}$	Topology
$\mathcal{U}$	Union	$\mathcal{V}$	Vector space
$\mathcal{W}$	Weight	$\mathcal{X}$	Space
$\mathcal{Y}$	Yield	$\mathcal{Z}$	Zero

Leu Arg Lys Arg Ile Leu Xaa  
100

<210> 85  
 <211> 45  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (45)  
 <223> Xaa equals stop translation

<400> 85  
 Met Gln Cys Asp Thr Phe Ser Lys Ala Thr Cys Cys Lys Ile Leu Leu  
           1                  5                  10                  15  
 Leu Ser Cys Cys Val Leu Tyr Leu Val Phe Ser Arg Leu Arg Gly Leu  
                   20                  25                  30  
 Asp Gln Arg Ser-Lys Arg Tyr Ser Leu Pro Asp His Xaa  
                   35                  40                  45

<210> 86  
 <211> 67  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (67)  
 <223> Xaa equals stop translation

<400> 86  
 Met Asn Tyr Ile Phe Leu Leu Met Ala Leu Pro His Leu Ile Ala Ile  
           1                  5                  10                  15  
 Ala Leu Thr Trp Gly Arg Tyr Ser Phe Ser Cys Leu Ala Asn Lys Glu  
                   20                  25                  30  
 Thr Glu Phe Gln Arg Cys Gln Val Thr Cys Leu Leu His Thr Leu Gly  
                   35                  40                  45  
 Val Leu Met Phe Asn Phe Glu Leu Arg Ser Ile Trp Leu Glu Ser Ser  
           50                  55                  60  
 Leu His Xaa  
           65

<210> 87  
 <211> 72  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (72)

<400> 87

Tyr Ile Phe Ser Tyr Tyr Tyr Xaa  
65 70

<210> 88

<211> 212

<212> PRT

<213> Homo sapiens

<400> 88

Met Lys Thr Leu Pro Ala Met Leu Gly Thr Gly Lys Leu Phe Trp Val  
1 5 10 15

Phe Phe Leu Ile Pro Tyr Leu Asp Ile Trp Asn Ile His Gly Lys Glu  
20 25 30

Ser Cys Asp Val Gln Leu Tyr Ile Lys Arg Gln Ser Glu His Ser Ile  
35 40 45

Leu Ala Gly Asp Pro Phe Glu Leu Glu Cys Pro Val Lys Tyr Cys Ala  
50 55 60

Asn Arg Pro His Val Thr Trp Cys Lys Leu Asn Gly Thr Thr Cys Val  
65 70 75 80

Lys Leu Glu Asp Arg Gln Thr Ser Trp Lys Glu Glu Lys Asn Ile Ser  
85 90 95

Phe Phe Ile Leu His Phe Glu Pro Val Leu Pro Asn Asp Asn Gly Ser  
100 105 110

Tyr Arg Cys Ser Ala Asn Phe Gln Ser Asn Leu Ile Glu Ser His Ser  
115 120 125

Thr Thr Leu Tyr Val Thr Gly Glu Phe Ser Thr Pro Arg Pro Ser Asp  
130 135 140

Ile Phe Leu Ile Met Phe Pro Gly Arg Gly Gly Phe Ser Phe Ser Ser  
145 150 155 160

Asp Tyr Val Arg Lys Pro Thr Pro Ile Ala His Leu Lys Ser Ala Thr  
165 170 175

Pro His Arg Leu Leu Cys Ala Ser Val Tyr Ile Cys Val Cys Met Cys  
180 185 190

Ala Phe Glu Val Ser Glu Ile Glu Glu Ser Arg Glu Ile Asp Ser Lys  
195 200 205

Ser Tyr Cys Phe  
210

```
<210> 89
<211> 111
<212> PRT
<213> Homo sapiens
```

```
<220>
<221> SITE
<222> (111)
<223> Xaa equals stop translation
```

```
<400> 89
Met Thr Val Ser Tyr Phe Trp Trp Leu Arg Val Gly Ala Trp Ala Glu
   1                   5               10                  15
```

Asp Val Glu Ala Leu Ala Ser Leu Pro Glu Asp Arg Leu Arg Trp Asn  
20 25 30

Leu Leu Ala Leu Pro Ala Ser Pro Cys Ala Val Thr Ala Leu Val Ala  
35 40 45

Arg His Arg Arg Ala Gly Leu Gln Arg Ser Ile Gln Cys Leu Leu Gly  
50 55 60

Arg Gln Gly Gly Gly Gly Cys Asn Cys Glu Leu Thr Lys Pro Gln Val  
65 70 75 80

Gly Ser Lys Trp Val Gly His Arg Lys Lys Ser Asp Leu Gln Ser Gly  
85 90 95

Asp Leu Gly Ser Gly Leu Cys Leu Met Thr Gly Ser Val Met Xaa  
100 105 110

```
<210> 90
<211> 42
<212> PRT
<213> Homo sapiens
```

```
<220>  
<221> SITE  
<222> (42)  
<223> Xaa equals stop translation
```

```
<400> 90
Met Val Lys Val Gly Ala Trp Arg Ala Val Gln Ile Leu Met Leu Phe
      1              5              10             15
```

Ala Asn Pro Gly His Ala Glu Gly Ala Cys Ile Ser Pro Gly Pro Ala

[illegible]

20 25 60 30

Gly Lys Arg Glu Pro Leu Lys Leu Gly Xaa

35 40

<210> 91  
 <211> 59  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (56)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (59)  
 <223> Xaa equals stop translation

<400> 91  
 Met Val Ala Thr Leu Cys Leu Glu Asn Ser Ser Val Ser Leu Trp Phe  
 1 5 10 15  
 Ile Phe Leu Ser Ser Leu Ser Ser Phe Pro Trp Cys Gly Ala Leu Ser  
 20 25 30  
 Asp Asn Trp Pro Ser Gly Gly Ala Val Ala Arg Cys His Ser Gly Arg  
 35 40 45  
 Arg Trp Phe Pro Glu Gly Ser Xaa Cys Leu Xaa  
 50 55

<210> 92  
 <211> 77  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (77)  
 <223> Xaa equals stop translation

<400> 92  
 Met Phe Cys Ile Gln Gln Lys Trp Leu Phe Ser Phe Leu Phe Tyr Glu  
 1 5 10 15  
 Val Gly Leu Met Gly Ile Asp Ser Leu Arg Lys Lys Tyr Asn Cys Lys  
 20 25 30  
 Ser Val Glu Val Phe Pro Ser Gln Asp Val Lys Cys Gln Arg Ser Asp  
 35 40 45  
 Ser Cys Gly Arg Met Gly Ser Lys Leu Tyr Lys Ser Leu Glu Met Asn  
 50 55 60



61

Glu Val Arg Gln Leu Ser Leu Arg Gln Lys Thr Met Xaa  
65 70 75

<210> 93  
<211> 69  
<212> PRT  
<213> Homo sapiens

<220>  
<221> SITE  
<222> (69)  
<223> Xaa equals stop translation

<400> 93  
Met Ala Lys Leu Met Tyr Tyr Gln Ile Leu Cys Leu Val Val Phe Cys  
1 5 10 15

Trp Leu Ile His Ser Phe Ile His Leu Phe Asn Lys His Phe Leu Ile  
20 25 30

Ala Phe Tyr Val Pro Gly Pro Ala Ile Asp Ala Arg Asp Ser Ala Val  
35 40 45

Ser Thr Thr Asp Lys Glu Phe Cys His Cys Gly Val Tyr Ile Leu Val  
50 55 60

Ala Gly Asp Arg Xaa  
65

<210> 94  
<211> 44  
<212> PRT  
<213> Homo sapiens

<220>  
<221> SITE  
<222> (44)  
<223> Xaa equals stop translation

<400> 94  
Met Glu Thr Thr Gly Ser Trp Thr Cys Leu Phe Asn Leu Val Ala Ile  
1 5 10 15

Ile Ser Asn Leu Gly Leu Cys Thr Phe Leu Val Phe Gly Gln Ala Gln  
20 25 30

Arg Val Asp Leu Ser Ser Thr His Glu Asp Leu Xaa  
35 40

<210> 95  
<211> 47  
<212> PRT  
<213> Homo sapiens

<220>

&lt;221&gt; SITE

&lt;222&gt; (47)

&lt;223&gt; Xaa equals stop translation

&lt;400&gt; 95

Met Lys Ala Gln Met Leu Leu Ser Leu Ala Trp Pro Leu Pro Leu Ser

1

5

10

15

Thr Ala Asn Ser Cys Leu Pro Gln Phe Pro Arg Gly Leu Tyr Ser Ala

20

25

30

His Tyr Cys Pro Ser Cys Leu Leu Phe Leu Glu Ala Leu Ser Xaa

35

40

45

&lt;210&gt; 96

&lt;211&gt; 48

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (48)

&lt;223&gt; Xaa equals stop translation

&lt;400&gt; 96

Met Cys Leu Leu Ser Phe Asn Cys Lys Ala Val Leu Ser Leu Ser Leu

1

5

10

15

Ile Ser Leu Ser Phe Leu Cys Cys Leu Glu Leu Cys Leu Ala Arg Cys

20

25

30

Gly Gly Arg Arg Asn Val Ser Ala Pro Leu Lys Met Phe Ile Ile Xaa

35

40

45

&lt;210&gt; 97

&lt;211&gt; 450

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 97

Met Leu Val Thr Ala Tyr Leu Ala Phe Val Gly Leu Leu Ala Ser Cys

1

5

10

15

Leu Gly Leu Glu Leu Ser Arg Cys Arg Ala Lys Pro Pro Gly Arg Ala

20

25

30

Cys Ser Asn Pro Ser Phe Leu Arg Phe Gln Leu Asp Phe Tyr Gln Val

35

40

45

Tyr Phe Leu Ala Leu Ala Ala Asp Trp Leu Gln Ala Pro Tyr Leu Tyr

50

55

60

Lys Leu Tyr Gln His Tyr Tyr Phe Leu Glu Gly Gln Ile Ala Ile Leu

65		70		63		75		80
Tyr Val Cys Gly Leu Ala Ser Thr Val Leu Phe Gly Leu Val Ala Ser								
		85				90		95
Ser Leu Val Asp Trp Leu Gly Arg Lys Asn Ser Cys Val Leu Phe Ser								
		100				105		110
Leu Thr Tyr Ser Leu Cys Cys Leu Thr Lys Leu Ser Gln Asp Tyr Phe								
		115				120		125
Val Leu Leu Val Gly Arg Ala Leu Gly Gly Leu Ser Thr Ala Leu Leu								
		130				135		140
Phe Ser Ala Phe Glu Ala Trp Tyr Ile His Glu His Val Glu Arg His								
		145				150		155
Asp Phe Pro Ala Glu Trp Ile Pro Ala Thr Phe Ala Arg Ala Ala Phe								
			165			170		175
Trp Asn His Val Leu Ala Val Val Ala Gly Val Ala Ala Glu Ala Val								
		180				185		190
Ala Ser Trp Ile Gly Leu Gly Pro Val Ala Pro Phe Val Ala Ala Ile								
		195				200		205
Pro Leu Leu Ala Leu Ala Gly Ala Leu Ala Leu Arg Asn Trp Gly Glu								
		210				215		220
Asn Tyr Asp Arg Gln Arg Ala Phe Ser Arg Thr Cys Ala Gly Gly Leu								
		225				230		235
Arg Cys Leu Leu Ser Asp Arg Arg Val Leu Leu Leu Gly Thr Ile Gln								
			245			250		255
Ala Leu Phe Glu Ser Val Ile Phe Ile Phe Val Phe Leu Trp Thr Pro								
		260				265		270
Val Leu Asp Pro His Gly Ala Pro Leu Gly Ile Ile Phe Ser Ser Phe								
		275				280		285
Met Ala Ala Ser Leu Leu Gly Ser Ser Leu Tyr Arg Ile Ala Thr Ser								
		290				295		300
Lys Arg Tyr His Leu Gln Pro Met His Leu Leu Ser Leu Ala Val Leu								
		305				310		315
Ile Val Val Phe Ser Leu Phe Met Leu Thr Phe Ser Thr Ser Pro Gly								
			325			330		335
Gln Glu Ser Pro Val Glu Ser Phe Ile Ala Phe Leu Leu Ile Glu Leu								
		340				345		350
Ala Cys Gly Leu Tyr Phe Pro Ser Met Ser Phe Leu Arg Arg Lys Val								
		355				360		365
Ile Pro Glu Thr Glu Gln Ala Gly Val Leu Asn Trp Phe Arg Val Pro								
		370				375		380

Leu His Ser Leu Ala Cys Leu Gly Leu Leu Val Leu His Asp Ser Asp  
385 390 395 400

Arg Lys Thr Gly Thr Arg Asn Met Phe Ser Ile Cys Ser Ala Val Met  
405 410 415

Val Met Ala Leu Leu Ala Val Val Gly Leu Phe Thr Val Val Arg His  
420 425 430

Asp Ala Glu Leu Arg Val Pro Ser Pro Thr Glu Glu Pro Tyr Ala Pro  
435 440 445

Glu Leu  
450

<210> 98

<211> 46

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (46)

<223> Xaa equals stop translation

<400> 98

Met Gln Ala His Pro Ile Phe Ile Tyr His Lys Arg Val Phe Phe Leu  
1 5 10 15

Leu Lys Phe Ile Phe Tyr Ile Ile Phe Cys Phe Phe Phe Leu Asp Ile  
20 25 30

Ser Thr Leu Tyr Cys Ser Leu Ser Thr Phe Cys Lys Lys Xaa  
35 40 45

<210> 99

<211> 48

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (48)

<223> Xaa equals stop translation

<400> 99

Met Gly Val Leu Leu Leu Phe Ser Phe Phe Phe Pro Asn Gly Ser Phe  
1 5 10 15

Ser Pro Val Val Leu Pro Ser Tyr Phe Pro Asn Ser Ser Ser Tyr Phe  
20 25 30

Val Phe Cys Thr Ser Phe Trp Arg Pro Leu Ser Phe Gln Lys Gly Xaa  
35 40 45

```
<220>
<221> SITE
<222> (50)
<223> Xaa equals stop translation
```

&lt;400&gt; 102

Met Gly Phe Ser Ile Ile Phe Arg Pro Glu Ala Ala Arg Pro Glu Val  
 1 5 10 15

Arg Leu His Leu Ser Ala Leu Phe Val Leu Leu Leu Ala Thr Leu Gly  
 20 25 30

Phe Leu Leu Gly Thr Met Cys Gly Cys Gly Met Cys Glu Gln Lys Gly  
 35 40 45

Gly Xaa  
 50

&lt;210&gt; 103

&lt;211&gt; 75

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (75)

&lt;223&gt; Xaa equals stop translation

&lt;400&gt; 103

Met Thr Leu Leu Leu Phe Ile Phe Phe Val Asp Cys Phe Ser Thr Pro  
 1 5 10 15

Gly Ser Ser Val Phe Asp Thr Gln Glu Val Trp Val Val Val Tyr Ser  
 20 25 30

Val Asn Lys Leu Leu Ala Val Gln His Cys Gln Gly Ile Ala Pro Asn  
 35 40 45

Val Tyr Ala Leu Ala Val Lys Lys Ser Val Cys Asn Val Ser Glu Trp  
 50 55 60

Ser Leu Val Ile Cys His Pro Met Pro Ile Xaa  
 65 70 75

&lt;210&gt; 104

&lt;211&gt; 123

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (123)

&lt;223&gt; Xaa equals stop translation

&lt;400&gt; 104

Met Leu Met Leu Ala Val Leu Met Ala Ala Thr His Ala Val Tyr Gly  
 1 5 10 15

Lys Leu Leu Leu Phe Glu Tyr Arg His Arg Lys Met Lys Pro Val Gln  
 20 25 30

```
<220>
<221> SITE
<222> (61)
<223> Xaa equals stop translation
```

&lt;400&gt; 106

Met Xaa Leu Ala Phe Ser Val Ile Ile Leu Ala Gly Ala Gly Ser Ser  
 1. 5 10 15

Arg Ser Trp Asn Ser Val Leu Val Glu Lys Glu Val Val Glu Gly Gly  
 20 25 30

Leu Gly Pro Trp Gly Asn Cys Ser Ala Glu Pro Leu Pro His Leu Leu  
 35 40 45

Leu Pro Arg Thr Asn Leu Lys Ala Lys Val Pro Gly Xaa  
 50 55 60

&lt;210&gt; 107

&lt;211&gt; 102

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (101)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (102)

&lt;223&gt; Xaa equals stop translation

&lt;400&gt; 107

Met Lys Thr Leu Pro Ala Met Leu Gly Thr Gly Lys Leu Phe Trp Val  
 1 5 10 15

Phe Phe Leu Ile Pro Tyr Leu Asp Ile Trp Asn Ile His Gly Lys Glu  
 20 25 30

Ser Cys Asp Val Gln Leu Tyr Ile Lys Arg Gln Ser Glu His Ser Ile  
 35 40 45

Leu Ala Gly Asp Pro Phe Glu Leu Glu Cys Pro Val Lys Tyr Cys Ala  
 50 55 60

Asn Arg Pro His Val Thr Trp Cys Lys Leu Asn Gly Thr Thr Cys Val  
 65 70 75 80

Lys Leu Glu Asp Arg Gln Thr Ser Trp Lys Lys Arg Arg Thr Phe His  
 85 90 95

Phe Ser Ser Thr Xaa Xaa  
 100

&lt;210&gt; 108

&lt;211&gt; 154

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens



&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (154)

&lt;223&gt; Xaa equals stop translation

&lt;400&gt; 108

Met Leu Val Thr Ala Tyr Leu Ala Phe Val Gly Leu Leu Ala Ser Cys  
 1 5 10 15

Leu Gly Leu Glu Leu Ser Arg Cys Arg Ala Lys Pro Pro Gly Arg Ala  
 20 25 30

Cys Ser Asn Pro Ser Phe Leu Arg Phe Gln Leu Asp Phe Tyr Gln Val  
 35 40 45

Tyr Phe Leu Ala Leu Ala Ala Asp Trp Leu Gln Ala Pro Tyr Leu Tyr  
 50 55 60

Lys Leu Tyr Gln His Tyr Tyr Phe Leu Glu Gly Gln Ile Ala Ile Leu  
 65 70 75 80

Tyr Val Cys Gly Leu Ala Ser Thr Val Leu Phe Gly Leu Val Ala Ser  
 85 90 95

Ser Leu Val Asp Trp Leu Gly Arg Lys Asn Ser Cys Val Leu Phe Ser  
 100 105 110

Leu Thr Tyr Ser Leu Cys Cys Leu Thr Lys Leu Ser Gln Asp Tyr Phe  
 115 120 125

Val Leu Leu Val Gly Arg Ala Leu Gly Gly Leu Ser Thr Ala Ala Leu  
 130 135 140

Leu Ser Leu Arg Gly Leu Val Tyr Pro Xaa  
 145 150

&lt;210&gt; 109

&lt;211&gt; 55

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 109

Val Lys Val Lys Glu Lys Ser Ala Ala Glu Gly Thr Gly Lys Lys Pro  
 1 5 10 15

Lys Gly Cys Arg Leu Pro Gly Val Leu Gly Glu Pro Pro Ser Ser Ala  
 20 25 30

Gly Pro Arg Lys Gln Arg Arg Thr Val Glu Lys Gly Gly Gly Gln Gly  
 35 40 45

Gly Asn Ser Arg Ala Ala Ser  
 50 55

&lt;210&gt; 110

&lt;211&gt; 14

<222> (57)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (58)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (131)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (158)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (175)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 113

Gln His Gly Leu Gln Ile Leu Leu Gln Arg Asp Gly Val Pro Gly Gly  
1 5 10 15

Asp Ala Gly Glu Pro His Gly Gln Xaa Arg Gly Leu His Ala Gln Gln  
20 25 30

Leu His Arg Pro Val Gly Ser Val Asp Leu Trp Ile Phe Arg Val Asp  
35 40 45

Ala Ala Gly Ser Gly Pro Xaa Val Xaa Xaa Gly Asn Glu Leu Arg His  
50 55 60

Leu Gln Gly Leu Pro Gly Thr Val Gly His Pro Arg Thr Met Asp Glu  
65 70 75 80

Thr Gly Pro Pro Ala Val Gly Glu Pro Arg Ser Gly Pro Ser Ala Gly  
85 90 95

Ser Ala Gly Pro Thr Ala Ala Ala Ser Pro Arg Pro Ala Ala Thr Ser  
100 105 110

Pro Thr Gly Arg Ala His Ile Ala Gly Arg Cys Ser Gln Pro Thr Ala  
115 120 125

Asp Asp Xaa Pro Glu Phe Val Cys Leu Lys Thr Leu Leu Leu Cys Leu  
130 135 140

Arg Met Gly Glu Met Arg Ser Glu Ala Pro Gly Ala Ala Xaa Glu Lys  
145 150 155 160

Asn Asn Phe Tyr Arg Asp Ala Arg Asp Ser Arg Gly Ser Gly Xaa Gly  
165 170 175

Thr Gly Gly Asn Ala Ala Cys Ala Gln Ser Pro Leu Pro Arg Thr Ser  
180 185 190

10062543-1030502

Gln Gly Leu Pro Gly Thr Val Gly His Pro Arg Thr Met Asp Glu Thr  
20 25 30

Gly Gly Asn Ala Ala Cys Ala Gln Ser Pro Leu Pro Arg Thr Ser Lys  
35 40 45

Val Gln Thr Gly Ile Trp Ser Asp Gln Leu Tyr Ser Gln Arg Pro Trp  
20 25 30

Arg Gly Arg Pro Gly Glu Gly Arg Gly Asn Thr Ala Thr Glu Thr Thr  
85 90 95

[illegible]

<220>



<221> SITE

<222> (24)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 124

Leu Pro Thr Leu His Ser Leu Ser Ser Tyr Gly Cys Pro Leu Thr Pro  
1 5 10 15

Ala Ala Pro Arg Glu Ala Leu Xaa Thr Cys Val Ile His Val Ser Asn  
20 25 30

Lys Pro Pro Ser Thr Pro Ser Cys Val Pro His Ala Pro Val  
35 40 45

<210> 125

<211> 46

<212> PRT

<213> Homo sapiens

<400> 125

His Leu Cys Cys Val Gly Val Gly Gly Pro Phe Ala His Ala Trp Gly  
1 5 10 15

Ile Pro Cys Pro Asp Gln Arg Asp Lys Glu Arg Glu Arg Arg Leu Gln  
20 25 30

Glu Ala Arg Gly Arg Pro Gly Glu Gly Arg Gly Asn Thr Ala  
35 40 45

<210> 126

<211> 46

<212> PRT

<213> Homo sapiens

<400> 126

Thr Glu Thr Thr Thr Arg His Ser Gln Arg Ala Ala Asp Gly Ser Ala  
1 5 10 15

Val Ser Thr Val Thr Lys Thr Glu Arg Leu Val His Ser Asn Asp Gly  
20 25 30

Thr Arg Thr Ala Arg Thr Thr Thr Val Glu Ser Ser Phe Val  
35 40 45

<210> 127

<211> 46

<212> PRT

<213> Homo sapiens

<400> 127

Arg Arg Ser Glu Asn Gly Ser Gly Ser Thr Met Met Gln Thr Lys Thr  
1 5 10 15

Phe Ser Ser Ser Ser Ser Ser Lys Lys Met Gly Ser Ile Phe Asp Arg  
20 25 30

123456789101112131415161718192021222324252627282930313233343536373839404142434445464748495051525354555657585960616263646566676869707172737475767778798081828384858687888990919293949596979899100

```
<210> 128
<211> 47
<212> PRT
<213> Homo sapiens
```

Leu Pro Lys Thr Ser Ala Ser Gln Ala Arg Lys Ala Met Ile Glu Lys  
20 25 30

Leu Glu Lys Glu Gly Ala Ala Gly Ser Pro Gly Gly Pro Arg Ala  
35 40 45

```
<210> 129  
<211> 47  
<212> PRT  
<213> Homo sapiens
```

<400> 129  
Ala Val Gln Arg Ser Thr Ser Phe Gly Val Pro Asn Ala Asn Ser Ile  
1 5 10 15

Lys Gln Met Leu Leu Asp Trp Cys Arg Ala Lys Thr Arg Gly Tyr Glu  
20 25 30

His Val Asp Ile Gln Asn Phe Ser Ser Ser Trp Ser Asp Gly Met  
35 40 45

```
<210> 130
<211> 49
<212> PRT
<213> Homo sapiens
```

<400> 130  
Ala Phe Cys Ala Leu Val His Asn Phe Phe Pro Glu Ala Phe Asp Tyr  
1 5 10 15

Gly Gln Leu Ser Pro Gln Asn Arg Arg Gln Asn Phe Glu Val Ala Phe  
20 25 30

Ser Ser Ala Glu Thr His Ala Asp Cys Pro Gln Leu Leu Asp Thr Glu  
35 40 45

Asp

```
<210> 131
<211> 34
```

<212> PRT

<213> Homo sapiens

<400> 131

Met Val Arg Leu Arg Glu Pro Asp Trp Lys Cys Val Tyr Thr Tyr Ile  
1 5 10 15

Gln Glu Phe Tyr Arg Cys Leu Val Gln Lys Gly Leu Val Lys Thr Lys  
20 25 30

Lys Ser

<210> 132

<211> 341

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (21)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (33)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (35)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (37)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (162)

<223> Xaa equals any of the naturally occurring L-amino acids

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<222> (326)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (333)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 132

Lys Met Glu Trp Leu Ala Asp Pro Thr Ala Trp Leu Gly Leu Leu Thr  
1 5 10 15

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80

Leu Ile Val Leu Xaa Leu Val Leu Gly Ile Asp Asn Leu Val Phe Ile  
20 25 30

Xaa Ile Xaa Ala Xaa Lys Leu Pro Pro Glu Gln Arg Asp Arg Ala Arg  
35 40 45

Leu Ile Gly Leu Ser Leu Ala Leu Leu Met Arg Leu Gly Leu Leu Ala  
50 55 60

Ser Ile Ser Trp Leu Val Thr Leu Thr Gln Pro Leu Phe Glu Val Phe  
65 70 75 80

Asp Lys Ser Phe Ser Gly Arg Asp Leu Ile Met Leu Phe Gly Gly Val  
85 90 95

Phe Leu Leu Phe Lys Ala Thr Met Glu Leu His Glu Arg Leu Glu Gly  
100 105 110

His Val Ala Gln Arg Thr Gly Asn Val Ala Tyr Ala Met Phe Trp Pro  
115 120 125

Ile Val Ala Gln Ile Val Val Leu Asp Ala Val Phe Ser Leu Asp Ala  
130 135 140

Val Ile Thr Ala Val Gly Met Val Asp Glu Leu Ala Val Met Met Ile  
145 150 155 160

Ala Xaa Ile Ile Ser Ile Gly Leu Met Ile Val Ala Ser Lys Pro Leu  
165 170 175

Thr Arg Phe Val Asn Ala His Pro Thr Val Ile Met Leu Cys Leu Gly  
180 185 190

Phe Leu Met Met Ile Gly Phe Ala Leu Thr Ala Glu Gly Leu Gly Phe  
195 200 205

His Ile Pro Lys Gly Tyr Leu Tyr Ala Ala Ile Gly Phe Ser Ile Leu  
210 215 220

Ile Glu Leu Phe Asn Gln Ile Ala Arg Ser Arg Arg Lys Lys Ser Ala  
225 230 235 240

Gln Gly Thr Leu Pro Arg Arg Glu Arg Thr Ala His Ala Val Met Arg  
245 250 255

Leu Leu Gly Gly Arg Asn Leu Ala Val Glu Glu Val Gly Glu Glu Val  
260 265 270

Ala Asp Leu Leu Asp Asn Pro Asp Ala Asn Gly Gly Pro Leu Phe Asp  
275 280 285

Arg Arg Glu Arg Val Met Ile Ser Gly Val Leu Gln Leu Ala Glu Arg  
290 295 300

Pro Ile Arg Thr Leu Met Thr Pro Arg Ala Lys Val Asp Ser Ile Asp  
305 310 315 320

Leu Ser Asp Asp Pro Xaa Thr Ile Arg Leu Lys Leu Xaa Ile Arg Leu

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81  
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335

Thr Arg Ala Cys Pro  
340

&lt;210&gt; 133

&lt;211&gt; 48

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (21)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (33)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (35)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (37)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 133

Lys Met Glu Trp Leu Ala Asp Pro Thr Ala Trp Leu Gly Leu Leu Thr  
1 5 10 15Leu Ile Val Leu Xaa Leu Val Leu Gly Ile Asp Asn Leu Val Phe Ile  
20 25 30Xaa Ile Xaa Ala Xaa Lys Leu Pro Pro Glu Gln Arg Asp Arg Ala Arg  
35 40 45

&lt;210&gt; 134

&lt;211&gt; 49

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 134

Leu Ile Gly Leu Ser Leu Ala Leu Leu Met Arg Leu Gly Leu Leu Ala  
1 5 10 15Ser Ile Ser Trp Leu Val Thr Leu Thr Gln Pro Leu Phe Glu Val Phe  
20 25 30

Asp Lys Ser Phe Ser Gly Arg Asp Leu Ile Met Leu Phe Gly Gly Val

35

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82

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Phe

&lt;210&gt; 135

&lt;211&gt; 47

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 135

Leu Leu Phe Lys Ala Thr Met Glu Leu His Glu Arg Leu Glu Gly His  
 1 5 10 15

Val Ala Gln Arg Thr Gly Asn Val Ala Tyr Ala Met Phe Trp Pro Ile  
 20 25 30

Val Ala Gln Ile Val Val Leu Asp Ala Val Phe Ser Leu Asp Ala  
 35 40 45

&lt;210&gt; 136

&lt;211&gt; 49

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (18)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 136

Val Ile Thr Ala Val Gly Met Val Asp Glu Leu Ala Val Met Met Ile  
 1 5 10 15

Ala Xaa Ile Ile Ser Ile Gly Leu Met Ile Val Ala Ser Lys Pro Leu  
 20 25 30

Thr Arg Phe Val Asn Ala His Pro Thr Val Ile Met Leu Cys Leu Gly  
 35 40 45

Phe

&lt;210&gt; 137

&lt;211&gt; 50

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 137

Leu Met Met Ile Gly Phe Ala Leu Thr Ala Glu Gly Leu Gly Phe His  
 1 5 10 15

Ile Pro Lys Gly Tyr Leu Tyr Ala Ala Ile Gly Phe Ser Ile Leu Ile  
 20 25 30

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Glu Leu Phe Asn Gln Ile Ala Arg Ser Arg Arg Lys Lys Ser Ala Gln  
           35                  40                          45

Gly Thr  
       50

<210> 138  
 <211> 48  
 <212> PRT  
 <213> Homo sapiens

<400> 138  
 Leu Pro Arg Arg Glu Arg Thr Ala His Ala Val Met Arg Leu Leu Gly  
       1                  5                          10                          15

Gly Arg Asn Leu Ala Val Glu Glu Val Gly Glu Glu Val Ala Asp Leu  
                   20                          25                          30

Leu Asp Asn Pro-Asp Ala Asn Gly Gly Pro Leu Phe Asp Arg Arg Glu  
           35                          40                          45

<210> 139  
 <211> 50  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (35)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (42)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 139  
 Arg Val Met Ile Ser Gly Val Leu Gln Leu Ala Glu Arg Pro Ile Arg  
       1                  5                          10                          15

Thr Leu Met Thr Pro Arg Ala Lys Val Asp Ser Ile Asp Leu Ser Asp  
                   20                          25                          30

Asp Pro Xaa Thr Ile Arg Leu Lys Leu Xaa Ile Arg Leu Thr Arg Ala  
           35                          40                          45

Cys Pro  
       50

<210> 140  
 <211> 15  
 <212> PRT

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<400> 140

<210> 141

<211> 12

<212> PRT

<213> Homo sapiens

<400> 141

Ser Ala Leu Ser Ile Ser Asn His Gln Gly Phe Phe  
1 5 10

<210> 142

<211> 32

<212> PRT

<213> Homo sapiens

<400> 142

His Lys Gly Ser Gly Arg Pro Pro Thr Lys Glu Ala Met Glu Pro Met  
1 5 10 15

Glu Leu Met Glu Glu Met Leu Gly Leu Trp Val Ser Ala Asp Thr Pro  
20 25 30

<210> 143

<211> 10

<212> PRT

<213> Homo sapiens

<400> 143

Thr Val Lys His Glu Val Ile His Ala Leu  
1 5 10

<210> 144

<211> 562

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (2)

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<222> (2)
<223> Xaa equals any of the naturally occurring L-amino acids
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<220>

<221> SITE

<222> (17)

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<223> Xaa equals any of the naturally occurring L-amino acids
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<220>  
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<222> (221)  
<223> Xaa equals any of the naturally occurring L-amino acids
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<220>
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<223> Xaa equals any of the naturally occurring L-amino acids
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Glu Xaa Leu Leu Pro Glu Lys Lys Asn Leu Val Lys Asn Lys Leu Leu  
1 5 10 15

Xaa Xaa Ala Ile-Ser Tyr Leu Glu Lys Thr Phe Gln Val Arg Arg Pro  
20 25 30

Ala Gly Thr Ile Leu Leu Ser Arg Gln Cys Ala Thr Asn Gln Tyr Leu  
35 40 45

Arg Lys Glu Asn Asp Pro His Arg Tyr Cys Thr Gly Glu Cys Ala Ala  
50 55 60

His Thr Lys Cys Gly Pro Val Ile Val Pro Glu Glu His Leu Gln Gln  
65 70 75 80

Cys Arg Val Tyr Arg Gly Gly Lys Trp Pro His Gly Ala Val Gly Val  
85 90 95

Pro Asp Gln Glu Gly Ile Ser Asp Ala Asp Phe Val Leu Tyr Val Gly  
100 105 110

Ala Leu Ala Thr Glu Arg Cys Ser His Glu Asn Ile Ile Ser Tyr Ala  
115 120 125

Ala Tyr Cys Gln Gln Glu Ala Asn Met Asp Arg Pro Ile Ala Gly Tyr  
130 135 140

Ala Asn Leu Cys Pro Asn Met Ile Ser Thr Gln Pro Gln Glu Phe Val  
145 150 155 160

Gly Met Leu Ser Thr Val Lys His Glu Val Ile His Ala Leu Gly Phe  
165 170 175

Ser Ala Gly Leu Phe Ala Phe Tyr His Asp Lys Asp Gly Asn Pro Leu  
180 185 190

Thr Ser Arg Phe Ala Asp Gly Leu Pro Pro Phe Asn Tyr Ser Leu Gly  
195 200 205

Leu Tyr Gln Trp Ser Asp Lys Val Val Arg Lys Val Xaa Arg Leu Trp  
210 215 220

[illegible]

Asp Val Arg Asp Asn Lys Ile Val Arg His Thr Val Tyr Leu Leu Val  
 225 230 235 240  
 Thr Pro Arg Val Val Glu Glu Ala Arg Lys His Phe Asp Cys Pro Val  
 245 250 255  
 Leu Glu Gly Met Glu Leu Glu Asn Gln Gly Gly Val Gly Thr Glu Leu  
 260 265 270  
 Asn His Trp Glu Lys Arg Leu Leu Glu Asn Glu Ala Met Thr Gly Ser  
 275 280 285  
 His Thr Gln Asn Arg Val Leu Ser Arg Ile Thr Leu Ala Leu Met Glu  
 290 295 300  
 Asp Thr Gly Trp Tyr Lys Ala Asn Tyr Ser Met Ala Glu Lys Leu Asp  
 305 310 315 320  
 Trp Gly Arg Gly Met Gly Cys Asp Phe Val Arg Lys Ser Cys Lys Phe  
 325 330 335  
 Trp Ile Asp Gln Gln Arg Gln Lys Arg Gln Met Leu Ser Pro Tyr Cys  
 340 345 350  
 Asp Thr Leu Arg Ser Asn Pro Leu Gln Leu Thr Cys Arg Gln Asp Gln  
 355 360 365  
 Arg Ala Val Ala Val Cys Asn Leu Gln Lys Phe Pro Lys Pro Leu Pro  
 370 375 380  
 Gln Glu Tyr Gln Tyr Phe Asp Glu Leu Ser Gly Ile Pro Ala Glu Asp  
 385 390 395 400  
 Leu Pro Tyr Tyr Gly Gly Ser Val Glu Ile Ala Asp Tyr Xaa Pro Phe  
 405 410 415  
 Ser Gln Glu Phe Ser Trp His Leu Ser Gly Glu Tyr Gln Arg Ser Ser  
 420 425 430  
 Asp Cys Arg Ile Leu Glu Asn Gln Pro Glu Ile Phe Lys Asn Tyr Gly  
 435 440 445  
 Ala Glu Lys Tyr Gly Pro His Ser Val Cys Leu Ile Gln Lys Ser Ala  
 450 455 460  
 Phe Val Met Glu Lys Cys Glu Arg Lys Leu Ser Tyr Pro Asp Trp Gly  
 465 470 475 480  
 Ser Gly Cys Tyr Gln Val Ser Cys Ser Pro Gln Gly Leu Lys Val Trp  
 485 490 495  
 Val Gln Asp Thr Ser Tyr Leu Cys Ser Arg Ala Gly Gln Val Leu Pro  
 500 505 510  
 Val Ser Ile Gln Met Asn Gly Trp Ile His Asp Gly Asn Leu Leu Cys  
 515 520 525  
 Pro Ser Cys Trp Asp Phe Cys Glu Leu Cys Pro Pro Glu Thr Asp Pro

225 230 235 240  
 245 250 255  
 260 265 270  
 275 280 285  
 290 295 300  
 305 310 315 320  
 325 330 335  
 340 345 350  
 355 360 365  
 370 375 380  
 385 390 395 400  
 405 410 415  
 420 425 430  
 435 440 445  
 450 455 460  
 465 470 475 480  
 485 490 495  
 500 505 510  
 515 520 525

Ser Ser

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<210> 145
<211> 47
<212> PRT
<213> Homo sapiens
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<220>
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<222> (2)
<223> Xaa equals any of the naturally occurring L-amino acids
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<220>
<221> SITE
<222> (17)
<223> Xaa equals any of the naturally occurring L-amino acids
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<220>
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<222> (18)
<223> Xaa equals any of the naturally occurring L-amino acids
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<400> 145  
Glu Xaa Leu Leu Pro Glu Lys Lys Asn Leu Val Lys Asn Lys Leu Leu  
1 5 10 15

Xaa Xaa Ala Ile Ser Tyr Leu Glu Lys Thr Phe Gln Val Arg Arg Pro  
20 25 30

Ala Gly Thr Ile Leu Leu Ser Arg Gln Cys Ala Thr Asn Gln Tyr  
35 40 45

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<210> 146
<211> 45
<212> PRT
<213> Homo sapiens
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<400> 146
Leu Arg Lys Glu Asn Asp Pro His Arg Tyr Cys Thr Gly Glu Cys Ala
  1             5             10             15
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Ala His Thr Lys Cys Gly Pro Val Ile Val Pro Glu Glu His Leu Gln  
20 25 30

Gln Cys Arg Val Tyr Arg Gly Gly Lys Trp Pro His Gly  
35 40 45

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<210> 147
<211> 45
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<213> Homo sapiens

Ala Val Gly Val Pro Asp Gln Glu Gly Ile Ser Asp Ala Asp Phe Val  
1 5 10 15

Leu Tyr Val Gly Ala Leu Ala Thr Glu Arg Cys Ser His Glu Asn Ile  
20 25 30

Ile Ser Tyr Ala Ala Tyr Cys Gln Gln Glu Ala Asn Met  
35 40 45

<211> 46

<213> Homo sapiens

Asp Arg Pro Ile Ala Gly Tyr Ala Asn Leu Cys Pro Asn Met Ile Ser  
1 5 10 15

Thr Gln Pro Gln Glu Phe Val Gly Met Leu Ser Thr Val Lys His Glu  
20 25 30

Val Ile His Ala Leu Gly Phe Ser Ala Gly Leu Phe Ala Phe  
35 40 45

<211> 45

<212> PRT

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (38)

<223> Xaa equals any of the naturally occurring L-amino acids

Tyr His Asp Lys Asp Gly Asn Pro Leu Thr Ser Arg Phe Ala Asp Gly  
1 5 10 15

Leu Pro Pro Phe Asn Tyr Ser Leu Gly Leu Tyr Gln Trp Ser Asp Lys  
20 25 30

Val Val Arg Lys Val Xaa Arg Leu Trp Asp Val Arg Asp  
35 40 45

<211> 46

<212> PRT

<213> Homo sapiens

<400> 150

Asn Lys Ile Val Arg His Thr Val Tyr Leu Leu Val Thr Pro Arg Val

1 5 89 10 15  
Val Glu Glu Ala Arg Lys His Phe Asp Cys Pro Val Leu Glu Gly Met  
20 25 30

Glu Leu Glu Asn Gln Gly Gly Val Gly Thr Glu Leu Asn His  
35 40 45

<210> 151  
<211> 45  
<212> PRT  
<213> Homo sapiens

<400> 151  
Trp Glu Lys Arg Leu Leu Glu Asn Glu Ala Met Thr Gly Ser His Thr  
1 5 10 15

Gln Asn Arg Val Leu Ser Arg Ile Thr Leu Ala Leu Met Glu Asp Thr  
20 25 30

Gly Trp Tyr Lys Ala Asn Tyr Ser Met Ala Glu Lys Leu  
35 40 45

<210> 152  
<211> 45  
<212> PRT  
<213> Homo sapiens

<400> 152  
Asp Trp Gly Arg Gly Met Gly Cys Asp Phe Val Arg Lys Ser Cys Lys  
1 5 10 15

Phe Trp Ile Asp Gln Gln Arg Gln Lys Arg Gln Met Leu Ser Pro Tyr  
20 25 30

Cys Asp Thr Leu Arg Ser Asn Pro Leu Gln Leu Thr Cys  
35 40 45

<210> 153  
<211> 47  
<212> PRT  
<213> Homo sapiens

<400> 153  
Arg Gln Asp Gln Arg Ala Val Ala Val Cys Asn Leu Gln Lys Phe Pro  
1 5 10 15

Lys Pro Leu Pro Gln Glu Tyr Gln Tyr Phe Asp Glu Leu Ser Gly Ile  
20 25 30

Pro Ala Glu Asp Leu Pro Tyr Tyr Gly Gly Ser Val Glu Ile Ala  
35 40 45

<210> 154

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<211> 48  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (3)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 154  
 Asp Tyr Xaa Pro Phe Ser Gln Glu Phe Ser Trp His Leu Ser Gly Glu  
           1                  5                  10                  15  
 Tyr Gln Arg Ser Ser Asp Cys Arg Ile Leu Glu Asn Gln Pro Glu Ile  
                   20                  25                  30  
 Phe Lys Asn Tyr Gly Ala Glu Lys Tyr Gly Pro His Ser Val Cys Leu  
           35                  40                  45

<210> 155  
 <211> 46  
 <212> PRT  
 <213> Homo sapiens

<400> 155  
 Ile Gln Lys Ser Ala Phe Val Met Glu Lys Cys Glu Arg Lys Leu Ser  
           1                  5                  10                  15  
 Tyr Pro Asp Trp Gly Ser Gly Cys Tyr Gln Val Ser Cys Ser Pro Gln  
                   20                  25                  30  
 Gly Leu Lys Val Trp Val Gln Asp Thr Ser Tyr Leu Cys Ser  
           35                  40                  45

<210> 156  
 <211> 57  
 <212> PRT  
 <213> Homo sapiens

<400> 156  
 Arg Ala Gly Gln Val Leu Pro Val Ser Ile Gln Met Asn Gly Trp Ile  
           1                  5                  10                  15  
 His Asp Gly Asn Leu Leu Cys Pro Ser Cys Trp Asp Phe Cys Glu Leu  
                   20                  25                  30  
 Cys Pro Pro Glu Thr Asp Pro Pro Ala Thr Asn Leu Thr Arg Ala Leu  
           35                  40                  45  
 Pro Leu Asp Leu Cys Ser Cys Ser Ser  
           50                  55

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<210> 162  
 <211> 106  
 <212> PRT  
 <213> Homo sapiens

<400> 162  
 Gly Ser Asn Lys Leu Ile Asn His Leu Glu Gln Cys Ser Ile Gly Trp  
           1                  5                  10                  15  
 Ile Phe Val Cys Leu Phe Val Cys Cys Tyr Ser Phe Cys Val Met Phe  
                   20                  25                  30  
 Cys Ile Gln Gln Lys Trp Leu Phe Ser Phe Leu Phe Tyr Glu Val Gly  
                   35                  40                  45  
 Leu Met Gly Ile Asp Ser Leu Arg Lys Lys Tyr Asn Cys Lys Ser Val  
           50                  55                  60  
 Glu Val Phe Pro Ser Gln Asp Val Lys Cys Gln Arg Ser Asp Ser Cys  
           65                  70                  75                  80  
 Gly Arg Met Gly Ser Lys Leu Tyr Lys Ser Leu Glu Met Asn Glu Val  
                   85                  90                  95  
 Arg Gln Leu Ser Leu Arg Gln Lys Thr Met  
                   100                  105

<210> 163  
 <211> 60  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (12)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 163  
 Thr Thr Trp Ala Thr Ser Ser Val Val Ala Arg Xaa Thr His His Leu  
           1                  5                  10                  15  
 Phe Pro Pro His Ser Gly Ile Ser Val Asn Ile Gln Asp Leu Ala Pro  
                   20                  25                  30  
 Ser Cys Ala Gly Phe Leu Phe Gly Val Ala Asn Thr Ala Gly Ala Leu  
           35                  40                  45  
 Ala Gly Val Val Gly Val Cys Leu Gly Gly Tyr Leu  
           50                  55                  60

<210> 164  
 <211> 103  
 <212> PRT  
 <213> Homo sapiens

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<223> Xaa equals any of the naturally occurring L-amino acids

Thr Thr Trp Ala Thr Ser Ser Val Val Ala Arg Xaa Thr His His Leu  
1 5 10 15

Phe Pro Pro His Ser Gly Ile Ser Val Asn Ile Gln Asp Leu Ala Pro  
20 25 30

Ser Cys Ala Gly Phe Leu Phe Gly Val Ala Asn Thr Ala Gly Ala Leu  
35 40 45

Ala Gly Val Val Gly Val Cys Leu Gly Gly Tyr Leu Met Glu Thr Thr  
50 55 60

Gly Ser Trp Thr Cys Leu Phe Asn Leu Val Ala Ile Ile Ser Asn Leu  
65 70 75 80

Gly Leu Cys Thr Phe Leu Val Phe Gly Gln Ala Gln Arg Val Asp Leu  
85 90 95

Ser Ser Thr His Glu Asp Leu  
100

<213> Homo sapiens

Asp Ser Pro Leu Thr Val Leu Pro Glu Asp Gly Tyr Gly Ser Asp Ser  
1 5 10 15

His Leu Ser Ser Gln Val Val Arg Gly Pro Thr  
20 25

<213> Homo sapiens

Met Leu Val Thr Ala Tyr Leu Ala Phe Val Gly Leu Leu Ala Ser Cys  
1 5 10 15

Leu Gly Leu Glu Leu Ser Arg Cys Arg Ala Lys Pro Pro Gly Arg Ala  
20 25 30

Cys Ser Asn Pro Ser Phe Leu Arg Phe Gln Leu Asp Phe Tyr Gln Val  
35 40 45

Tyr Phe Leu Ala Leu Ala Ala Asp Trp Leu Gln Ala Pro Tyr Leu Tyr  
50 55 60

Tyr Phe Leu Glu Gly Gln Ile Ala Ile Leu Tyr Val Cys Gly Leu Ala  
130 135 140

Ser Thr Val Leu Phe Gly Leu Val Ala Ser Ser Ser Leu Val Asp Trp Leu	145	150	155	160
Gly Arg Lys Asn Ser Cys Val Leu Phe Ser Leu Thr Tyr Ser Leu Cys	165	170	175	
Cys Leu Thr Lys Leu Ser Gln Asp Tyr Phe Val Leu Leu Val Gly Arg	180	185	190	
Ala Leu Gly Gly Leu Ser Thr Ala Leu Leu Phe Ser Ala Phe Glu Ala	195	200	205	
Trp Tyr Ile His Glu His Val Glu Arg His Asp Phe Pro Ala Glu Trp	210	215	220	
Ile Pro Ala Thr Phe Ala Arg Ala Ala Phe Trp Asn His Val Leu Ala	225	230	235	240
Val Val Ala Gly Val Ala Ala Glu Ala Val Ala Ser Trp Ile Gly Leu	245	250	255	
Gly Pro Val Ala Pro Phe Val Ala Ala Ile Pro Leu Leu Ala Leu Ala	260	265	270	
Gly Ala Leu Ala Leu Arg Asn Trp Gly Glu Asn Tyr Asp Arg Gln Arg	275	280	285	
Ala Phe Ser Arg Thr Cys Ala Gly Gly Leu Arg Cys Leu Leu Ser Asp	290	295	300	
Arg Arg Val Leu Leu Leu Gly Thr Ile Gln Ala Leu Phe Glu Ser Val	305	310	315	320
Ile Phe Ile Phe Val Phe Leu Trp Thr Pro Val Leu Asp Pro His Gly	325	330	335	
Ala Pro Leu Gly Ile Ile Phe Ser Ser Phe Met Ala Ala Ser Leu Leu	340	345	350	
Gly Ser Ser Leu Tyr Arg Ile Ala Thr Ser Lys Arg Tyr His Leu Gln	355	360	365	
Pro Met His Leu Leu Ser Leu Ala Val Leu Ile Val Val Phe Ser Leu	370	375	380	
Phe Met Leu Thr Phe Ser Thr Ser Pro Gly Gln Glu Ser Pro Val Glu	385	390	395	400
Ser Phe Ile Ala Phe Leu Leu Ile Glu Leu Ala Cys Gly Leu Tyr Phe	405	410	415	
Pro Ser Met Ser Phe Leu Arg Arg Lys Val Ile Pro Glu Thr Glu Gln	420	425	430	
Ala Gly Val Leu Asn Trp Phe Arg Val Pro Leu His Ser Leu Ala Cys	435	440	445	
Leu Gly Leu Leu Val Leu His Asp Ser Asp Arg Lys Thr Gly Thr Arg				

Val Ser Gln Pro Glu Leu Trp Tyr Arg Glu  
20 25

<210> 171  
 <211> 73  
 <212> PRT  
 <213> Homo sapiens

<400> 171

Lys Pro Thr Lys Met Pro Leu Leu Trp Val Trp Ala Leu Ile Ala Ala  
 1 5 10 15

Val Ser Gln Pro Glu Leu Trp Tyr Arg Glu Met Gly Val Leu Leu Leu  
 20 25 30

Phe Ser Phe Phe Phe Pro Asn Gly Ser Phe Ser Pro Val Val Leu Pro  
 35 40 45

Ser Tyr Phe Pro Asn Ser Ser Ser Tyr Phe Val Phe Cys Thr Ser Phe  
 50 55 60

Trp Arg Pro Leu Ser Phe Gln Lys Gly  
 65 70

<210> 172

<211> 85

<212> PRT

<213> Homo sapiens

<400> 172

Cys Phe Thr His Trp Asn Val Phe Pro Arg Leu Trp Met Thr Ser Phe  
 1 5 10 15

Leu Met Glu Arg Val Gln Glu Gly Trp Lys Thr Pro Gly Phe Lys Leu  
 20 25 30

Ser Ile Pro His Met Gly Phe Ser Ile Ile Phe Arg Pro Glu Ala Ala  
 35 40 45

Arg Pro Glu Val Arg Leu His Leu Ser Ala Leu Phe Val Leu Leu Leu  
 50 55 60

Ala Thr Leu Gly Phe Leu Leu Gly Thr Met Cys Gly Cys Gly Met Cys  
 65 70 75 80

Glu Gln Lys Gly Gly  
 85